LearnHub – Technology Stack

Project Name: LearnHub
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1. Introduction

This document outlines the technology stack used in the LearnHub project, detailing the tools, frameworks, and platforms involved in the development of the web-based learning management system.

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2. Frontend Technologies

- **HTML5, CSS3** – For markup and styling

- **JavaScript (ES6+)** – Client-side scripting

- **React.js** – Component-based user interface framework

- **Tailwind CSS** – Utility-first CSS framework

- **Axios** – HTTP client for API communication

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3. Backend Technologies

- **Node.js** – JavaScript runtime for server-side development

- **Express.js** – Web application framework for Node.js

- **Django (optional)** – For REST API backend (if Python preferred)

- **JWT** – JSON Web Tokens for authentication

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4. Database & Storage

- **MongoDB** – NoSQL database for storing user, course, and progress data

- **Firebase Storage / AWS S3** – For storing videos, PDFs, and documents

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5. DevOps & Deployment

- **GitHub** – Version control and code hosting

- **GitHub Actions** – CI/CD pipeline for automated deployment

- **Firebase Hosting / AWS EC2** – For deploying frontend and backend services

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6. Tools & Utilities

- **Postman** – API testing

- **Draw.io** – For architecture and system diagrams

- **VS Code** – Integrated development environment

- **Google Docs/Sheets** – Documentation and collaboration